

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original): A method for making a ferrous metal alloy foil which has a high oxidation resistance and high dimension stability in an automotive exhaust gas atmosphere comprising the steps of:

- a) providing a first layer of a first metal material;
 - b) sandwiching the first layer of the first material between a first and second layer of one or more second metal material(s) which is different from the first material thereby producing a sandwiched composite;
 - c) compaction rolling the sandwiched composite to a finished thickness metal composite foil;
 - d) processing the finished thickness metal composite foil into a honeycomb-like structure having channels for air flow;
 - e) placing the honeycomb-like structure into a furnace which has been preheated to near or at an annealing temperature, in an air atmosphere, and heating at an annealing temperature for a period of time which is sufficient to cause diffusion of said one or more second metal materials into said first metal materials to produce a monolithic honeycomb-like annealed alloy foil structure;
 - f) cooling the furnace and the monolithic honeycomb-like annealed alloy foil structure to room temperature;
- wherein the one or more of the first metal material or second metal material(s) contains iron.

Claim 2 (original): The method of claim 1, wherein the first metal material comprises Fe and Cr.

Claim 3 (original): The method of claim 2, wherein the Cr content is about 16 to about 24 wt%.

Claim 4 (original): The method of claim 1, wherein the first metal material is selected from stainless steel 430, 434 and 446.

Claim 5 (original): The method of claim 2, wherein the second metal material comprises aluminum.

Claim 6 (original): The method of claim 5, wherein the aluminum is essentially pure aluminum or an aluminum alloy.

Claim 7 (currently amended): The method of claim 1, wherein the first metal material [[if]]is FeCr' and the second [[method]]metal material is Al.

Claim 8 (original): The method of claim 7, wherein the furnace is preheated to an annealing temperature and the annealing temperature is from about 900° C to about 1,200° C.

Claim 9 (original): The method of claim 8, wherein the period of time for annealing is between about 10 minutes and about 120 minutes.

Claim 10 (original): The method of claim 9, wherein a monolithic FeCrAl alloy is formed, further wherein a pre-oxidized surface is formed.

Claim 11 (original): The method of claim 10, wherein the pre-oxidized surface comprises Al-oxide.

Claim 12 (original): The method of claim 7, wherein the preheated temperature is about 720° C.

Claim 13 (original): The method of claim 12 further, wherein the furnace is heated to an annealing temperature of between about 900° C and 1,200° C within about 30 minutes after the honeycomb-like structure is placed in the furnace and the honeycomb-like structure is heated for about 2 hours at the annealing temperature.

Claim 14 (original): The method of claim 13, wherein a monolithic FeCr-Al alloy is formed, further wherein a pre-oxidized surface is formed thereon.

Claim 15 (original): The method of claim 14, wherein the pre-oxidized surface comprises Al-oxide.

Claim 16 (withdrawn): A product produced in accordance with the process of claim 1.

Claim 17 (withdrawn): A product produced in accordance with the process of claim 11.

Claim 18 (withdrawn): A product produced in accordance with the process of claim 15.

Claim 19 (withdrawn): A catalytic converter comprising a product produced according to the process of claim 11.

Claim 20 (withdrawn): A catalytic converter comprising a product produced by the process of claim 15.

Claim 21 (original): A process of making a ferrous metal substrate catalytic converter comprising the steps of:

- a) providing a first layer of a first material selected from the group consisting of chromium containing ferrous metals or aluminum containing materials;

b) sandwiching said first layer of said first material between a first and second layer of a second material selected from the group consisting of chromium containing ferrous metals or aluminum containing materials not chosen for the first material thereby producing a sandwiched composite;

c) compaction rolling the sandwiched composite to a finished thickness metal foil;

d) processing the finished thickness metal composite foil into a honeycomb-like structure having channels for air flow;

e) placing the honeycomb-like structure into a furnace which has been preheated to near or at an annealing temperature, in an air atmosphere, and heating at an annealing temperature for a period of time which is sufficient to cause diffusion of said one or more second metal materials into said first metal materials to produce a monolithic honeycomb-like annealed alloy foil structure;

f) cooling the furnace and the monolithic honeycomb-like annealed alloy foil structure to room temperature;

wherein the cooled product of step f) has a pre-oxidized surface comprising Al-oxide.

Claim 22 (original): The process of claim 21, wherein the first material is FeCr and the second material is pure Al.

Claim 23 (withdrawn): A product produced according to the process of claim 21.

Claim 24 (withdrawn): A catalytic converter comprising a product produced by the process of claim 21.